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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,471	07/23/2003	Angel Pellicer	PELLICER1A	1686

7590 08/02/2007

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EXAMINER	
HOLLERAN, ANNE L	
ART UNIT	PAPER NUMBER
1643	

MAIL DATE	DELIVERY MODE
08/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/625,471	PELLICER ET AL.	
	Examiner	Art Unit	
	Anne L. Holleran	1643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-18, 20, 21, 23-35* is/are pending in the application.

4a) Of the above claim(s) *27-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16,20, 21,23, 24, 26 ,34 and 35* is/are rejected.

7)☒ Claim(s) *17,18 and 25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action supersedes the previous Office action, mailed 3/28/2007. The previous Office action is vacated.

2. The amendment file 12/14/2006 is acknowledged. Claims 1-15, 19 and 22 were canceled.

3. Claims 16-18, 20, 21, 23-35 are pending. Claims 27-33, drawn to non-elected inventions, are withdrawn from consideration.

Claims 16-18, 20, 21, 23-26, 34 and 35 are examined on the merits.

Claim Objections/Rejections Withdrawn:

4. The objection to claims 16, 19 and 20 for depending from a claim that is withdrawn from consideration is withdrawn in view of the amendment to claim 16 and 20, and the cancellation of claim 19.

Claim Rejections - 35 USC § 112

5. The rejection of claims 16, 20, 34 and 35 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in view of the amendment to the claims.

6. The rejection of claims 16, 20, 34 and 35 under 35 U.S.C. 102(b) as being anticipated by D'Adamo (D'Adamo, et al., Oncogene, 14: 1295-1305, 1997; cited in the IDS) or Miller (Miller, M.J. et al., Journal of Biological Chemistry, 272(9): 5600-5605, 1997) is withdrawn in view of the amendments to the claims.

Claim Rejections Maintained and New Grounds of Rejection:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 23 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 (and dependent claim 26) is indefinite because it appears to be missing a phrase such as, for example, "the abnormally truncated variant".

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 16, 20, 21, 34 and 35 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for isolated nucleic acids that encode a polypeptide that comprises the amino acid sequence of SEQ ID NO: 2, or for nucleic acids *consisting of* nucleic acid sequences that encode SEQ ID NO: 8, or for specific nucleic acids

consisting of the sequences of SEQ ID NOS: 5-7 and 9, 11, 13, 15, 17, 19, 21 and 23, does not reasonably provide enablement for nucleic acids encoding a polypeptide that is a variant of human Rgr consisting of an amino acid sequence with at least 98% sequence identity to SEQ ID NO: 2, or *comprises* the nucleic acid sequences of SEQ ID NOS: 5-7. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicants argue that the amendments to the claims obviate the rejection of record. This is not found persuasive because, as explained in the previous Office action, it is not clear from the specification how one of skill in the art may use nucleic acids that encode polypeptides having functional activity that is not the same as the amino acid sequence of SEQ ID NO: 2, which encodes human Rgr. In the previous Office action, the examiner noted that even a single amino acid substitution will often dramatically affect the biological activity and characteristics of a protein, and that the specification does not teach specific biological activities of human Rgr, and that it is unpredictable whether human Rgr exhibits exactly the same set if activities as rabbit Rgr. Therefore, the claims to nucleic acids encoding variant polypeptides of human Rgr consisting an amino acid sequence with at least 98% sequence identity to the amino acid sequence of SEQ ID NO: 2 are not enabled by the specification because one of skill in the art would first have to establish what are the activities of human Rgr, and then to screen for the working embodiments. Without a set of activities to use in a routine assay, it would require further and undue experimentation to screen for useful variants of human Rgr protein consisting of an amino acid sequence with at least 98% sequence identity to SEQ ID NO: 2. Furthermore, the claim 16 and also claim 20 contains the recitation "consisting of an amino acid sequence with

at least 98% identity to SEQ ID NO: 2" reads on subsequences of SEQ ID NO: 2, where the amino acid sequences of the subsequences has 98% sequence identity with SEQ ID NO: 2.

Applicants also explain that in one aspect the claims are limited to polynucleotides consisting of the nucleic acid sequence of SEQ ID NO: 5, SEQ ID NO: 6 or SEQ ID NO: 7. However, in claim 16 the claims are drawn to "isolated nuclei acid molecules comprising a nucleotide sequence...". Therefore, the claims read on nucleic acid sequences comprising fragments of a polynucleotide encoding SEQ ID NO: 2.

9. Claims 16, 20 and 21 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The basis for this rejection is that the specification fails to provide a description that is sufficient to support genus claims.

Applicants assert that the claim amendments obviate the rejections under 35 USC 112, first paragraph. This is not found persuasive because claim 16 continues to be drawn to "nucleic acid molecules comprising a nucleotide sequence", and because claim 20 recites "wherein the polypeptide consists of an amino acid sequence with at least 98% sequence identity to SEQ ID NO: 2, which reads on subsequences. Claim 21 depends from claim 20, and appears to read on subsequences because it is dependent from claim 20. Therefore, given the preamble of claim 16, and because claims 20 and 21 depend from claim 16, claims 20 and 21 appear to be drawn to polynucleotides comprising fragments of polynucleotides encoding SEQ ID NO: 2. In the

previous Office action it was pointed out that the specification only teaches fragments of SEQ ID NO: 2 in the context of SEQ ID NO: 2 itself, or in the context of the specific fragment itself (consisting of the fragment).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 16 remains rejected under 35 U.S.C. 102(e) as being anticipated by WO 01/57278 (Penn et al., 9 August 2001).

Applicants argue that the rejection is obviated by the amendments, because the claims no longer read on polynucleotides comprising nucleic acids comprising the sequence of SEQ ID NO: 5, 6 or 7. This is not found persuasive because the preamble of claim 16 is drawn to "an isolated nucleic acid molecule comprising a nucleotide sequence..."

Penn teaches nucleic acid molecules that comprise SEQ ID NO: 5, 6 or 7. Therefore, Penn teaches the claimed nucleic acid molecules.

11. Claims 16, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Accession No. AAA97456 (CN1257923-A in database Geneseq, Gencore version 5.1.9, 28 June 2000).

Claims 16 and 20 are drawn to nucleic acid molecules where the polypeptide consists of an amino acid sequence with at least 98% sequence identity to SEQ ID NO: 2. Because of the phrase "consisting of an amino acid sequence", the claims read on nucleotides encoding subsequences of SEQ ID NO: 2, and because of the preamble of claim 16, where claim 16 is drawn to "an isolated nucleic acid molecule comprising a nucleotide sequence...", claims 16, 20 and 21 are drawn to sequences comprising polynucleotides encoding subsequences of SEQ ID NO: 2.

Accession No. AAA97456 comprises subsequences of SEQ ID NO: 2 (see alignment) and therefore teaches polynucleotides within the scope of the claims.

12. Claims 16, 20 and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by Accession No. AAS34856 (WO200155163-A in database Geneseq, Gencore version 5.1.9, 02 August 2001).

Claims 16 and 20 are drawn to nucleic acid molecules encoding polypeptides, where the polypeptides consist of an amino acid sequence with at least 98% sequence identity to SEQ ID NO: 2. Because of the phrase "consisting of an amino acid sequence", the claims read on nucleotides encoding subsequences of SEQ ID NO: 2, and because of the preamble of claim 16, where claim 16 is drawn to "an isolated nucleic acid molecule comprising a nucleotide

sequence...", claims 16, 20 and 21 are drawn to sequences comprising polynucleotides encoding subsequences of SEQ ID NO: 2.

Accession No. AAS34856 comprises subsequences of SEQ ID NO: 2 (see alignment) and therefore teaches polynucleotides within the scope of the claims.

13. Claims 16, 20, 21, 23, 34 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Tang (WO 01/53312 A1; publication date 26 July 2001; international filing date is 26 December 2000; pages 2-5, 27-32, 299, and 6443).

Tang discloses SEQ ID NO: 3567 (see page 6443) which is an amino acid sequence that encompasses SEQ ID NOs: 10 and 22. Tang discloses polynucleotides encoding SEQ ID NO: 3567 (see pages 2-5, 27 and 299), which is a sequence that encodes SEQ ID NO: 10, 22, and encodes a sequence that is at least 98% identical to SEQ ID NO: 2. Tang discloses methods of making polypeptides that require the use of host cells transfected with vectors comprising the encoding polynucleotides (see page 4, lines 4-10; page 29, lines 19-27). The claims are drawn to nucleic acids comprising polynucleotides encoding polypeptides consisting of amino acid sequences such as SEQ ID NO: 10 and 22, vectors and host cells. Even though the claims contain the transitional phrase "consisting of" with respect to the polypeptide sequence, the claims are drawn to nucleic acid molecules that comprise polynucleotide sequences encoding those polypeptide sequences. Therefore, Tang teaches polynucleotides, vectors and host cells that are the same as that claimed.

14. Claims 16, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by either Adams (Accession No. AA311687, in Nature 377 (6547 Suppl): 3-174, 1995) or Hedge (Accession No. AW962844, 01 June 2000).

Claims 16 and 23 read on isolated nucleic acid molecules comprising a nucleotide sequence encoding for a polypeptide selected from the group of consisting of SEQ ID NO: 10, 12, 14, 16, 18, 20, 22 or 24.

Either of Adams or Hedge teaches nucleic acids that encode SEQ ID NO: 22 (see following alignments for SEQ ID NO: 22). Adams or Hedge also teach nucleic acids that encode SEQ ID NO: 10. Therefore, either of Adams or Hedge teach nucleic acid molecules that are the same as that claimed.

```
RESULT 1
AA311687
LOCUS       AA311687                 408 bp    mRNA    linear   EST 19-APR-1997
DEFINITION  EST182411 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to
            similar to guanine nucleotide dissociation stimulator, mRNA
            sequence.
ACCESSION   AA311687
VERSION     AA311687.1  GI:1964015
KEYWORDS    EST.
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
            Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 408)
  AUTHORS   Adams,M.D., Kerlavage,A.R., Fleischmann,R.D., Fuldner,R.A.,
            Bult,C.J., Lee,N.H., Kirkness,E.F., Weinstock,K.G., Gocayne,J.D.,
            White,O., Sutton,G., Blake,J.A., Brandon,R.C., Man-Wai,C.,
            Clayton,R.A., Cline,T.R., Cotton,M.D., Earle-Hughes,J., Fine,L.D.,
            Fitzgerald,L.M., Fitzhugh,W.M., Fritchman,J.L., Geoghagen,N.S.,
            Glodek,A., Gnehm,C.L., Hanna,M.C., Hedblom,E., Hinkle,P.S.Jr.,
            Kelley,J.M., Kelley,J.C., Liu,L.-I., Marmaros,S.M., Merrick,J.M.,
            Moreno-Palanques,R.F., McDonald,L.A., Nguyen,D.T., Pelligrino,S.M.,
            Phillips,C.A., Ryder,S.E., Scott,J.L., Saudek,D.M., Shirley,R.,
            Small,K.V., Spriggs,T.A., Utterback,T.R., Weidman,J.F., Li,Y.,
            Bednarik,D.P., Cao,L., Cepeda,M.A., Coleman,T.A., Collins,E.J.,
            Dimke,D., Feng,D.-F., Ferrie,A., Fischer,C., Hastings,G.A.,
            He,W.W., Hu,J.S., Greene,J.M., Gruber,J., Hudson,P., Kim,A.K.,
            Kozak,D.L., Kunsch,C., Hungjun,J., Li,H., Meissner,P.S., Olsen,H.,
            Raymond,L., Wei,Y.F., Wing,J., Xu,C., Yu,G.L., Ruben,S.M.,
            Dillion,P.J., Fannon,M.R., Rosen,C.A., Haseltine,W.A., Fields,C.,
            Fraser,C.M. and Venter,J.C.
  TITLE     Initial assessment of human gene diversity and expression patterns
            based upon 83 million nucleotides of cDNA sequence
  JOURNAL   Nature 377 (6547 Suppl), 3-174 (1995)
   PUBMED   7566098
COMMENT     Other_ESTs: THC123926
```

```
            Contact: Kerlavage, AR
            Bioinformatics
            The Institute for Genomic Research
            9712 Medical Center Drive, Rockville, MD 20850 USA
            Tel: 3018699056
            Fax: 3018699423
            Email: arkerlav@tigr.org
            For clone availability, additional sequence and expression
            information related to this EST, please check the TIGR Human Gene
            Index (http://www.tigr.org/tdb/hgi/hgi.html)
            Seq primer: M13 Reverse.
FEATURES              Location/Qualifiers
     source           1. .408
                      /organism="Homo sapiens"
                      /mol_type="mRNA"
                      /db_xref="ATCC (inhost):158906"
                      /db_xref="taxon:9606"
                      /cell_type="T-lymphocyte"
                      /clone_lib="Jurkat T-cells VI"
                      /note="Vector: pBluescript SK-; Site_1: EcoRI; Site_2:
                      XhoI"
ORIGIN

Alignment Scores:
Pred. No.:              1.18e-56        Length:         408
Score:                  478.00          Matches:        94
Percent Similarity:     100.0%          Conservative:   0
Best Local Similarity:  100.0%          Mismatches:     0
Query Match:            100.0%          Indels:         0
DB:                     1               Gaps:           0

US-10-625-471-22 (1-94) x AA311687 (1-408)

Qy          1 MetArgLeuArgArgGlnLysLysGlyValValProPheLeuGlyAspPheLeuThrGlu 20
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         16 ATGAGGCTGCGGAGGCAGAAGAAGGGTGTGGTCCCCTTCCTGGGGGATTTTCTGACTGAG 75

Qy         21 LeuGlnArgLeuAspSerAlaIleProAspAspLeuAspGlyAsnThrAsnLysArgSer 40
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         76 TTACAGAGGCTGGATTCGGCCATCCCGGACGACCTGGATGGCAACACCAACAAGAGGAGC 135

Qy         41 LysGluValArgValLeuGlnGluMetGlnLeuLeuGlnValAlaAlaMetAsnTyrArg 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        136 AAGGAGGTCCGAGTTCTGCAGGAAATGCAGCTGCTCCAAGTGGCTGCCATGAATTACAGG 195

Qy         61 LeuArgProLeuGluLysPheValThrTyrPheThrArgMetGluGlnLeuSerAspLys 80
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        196 CTTCGGCCTCTTGAGAAATTTGTCACCTATTTCACAAGAATGGAGCAGCTCAGTGACAAA 255

Qy         81 GluSerTyrLysLeuSerCysGlnLeuGluProGluAsnPro 94
              ||||||||||||||||||||||||||||||||||||||||||
Db        256 GAGAGCTACAAGCTNTCCTGCCAGCTGGAGCCCGAAAACCCG 297

RESULT 2
AW962844
LOCUS       AW962844                583 bp    mRNA    linear   EST 01-JUN-2000
DEFINITION  EST374917 MAGE resequences, MAGG Homo sapiens cDNA, mRNA sequence.
ACCESSION   AW962844
VERSION     AW962844.1  GI:8152680
KEYWORDS    EST.
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
            Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 583)
  AUTHORS   Hegde,P., Qi,R., Abernathy,K., Dharap,S., Gaspard,R., Gay,C.,
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            Holt,I.E., Saeed,A.I., Sharov,V., Lee,N.H., Yeatman,T.J. and
            Quackenbush,J.
  TITLE     Assessment of gene expression patterns in a model of colon tumor
            metastasis using a 19,200 element cDNA microarray
  JOURNAL   Unpublished (2000)
COMMENT     Contact: John Quackenbush
            The Institute for Genomic Research
            9712 Medical Center Dr., Rockville, MD 20850, USA
            Tel: 301 838 3528
            Fax: 301 838 0208
            Email: johnq@tigr.org
            Plate: 180
            Seq primer: Reverse.
FEATURES             Location/Qualifiers
     source          1. .583
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                     /mol_type="mRNA"
                     /db_xref="taxon:9606"
                     /clone_lib="MAGE resequences, MAGG"
                     /note="Vector: pBluescriptSKm"
ORIGIN

Alignment Scores:
Pred. No.:              1.88e-56        Length:         583
Score:                  478.00          Matches:        94
Percent Similarity:     100.0%          Conservative:   0
Best Local Similarity:  100.0%          Mismatches:     0
Query Match:            100.0%          Indels:         0
DB:                     7               Gaps:           0

US-10-625-471-22 (1-94) x AW962844 (1-583)

Qy          1 MetArgLeuArgArgGlnLysLysGlyValValProPheLeuGlyAspPheLeuThrGlu 20
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         15 ATGAGGCTGCGGAGGCAGAAGAAGGGTGTGGTCCCCTTCCTGGGGGATTTTCTGACTGAG 74

Qy         21 LeuGlnArgLeuAspSerAlaIleProAspAspLeuAspGlyAsnThrAsnLysArgSer 40
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         75 TTACAGAGGCTGGATTCGGCCATCCCGGACGACCTGGATGGCAACACCAACAAGAGGAGC 134

Qy         41 LysGluValArgValLeuGlnGluMetGlnLeuLeuGlnValAlaAlaMetAsnTyrArg 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        135 AAGGAGGTCCGAGTTCTGCAGGAAATGCAGCTGCTCCAAGTGGCTGCCATGAATTACAGG 194

Qy         61 LeuArgProLeuGluLysPheValThrTyrPheThrArgMetGluGlnLeuSerAspLys 80
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        195 CTTCGGCCTCTTGAGAAATTTGTCACCTATTTCACAAGAATGGAGCAGCTCAGTGACAAA 254

Qy         81 GluSerTyrLysLeuSerCysGlnLeuGluProGluAsnPro 94
              ||||||||||||||||||||||||||||||||||||||||||
Db        255 GAGAGCTACAAGCTGTCCTGCCAGCTGGAGCCCGAAAACCCG 296
```

15. Claims 16 and 23 remain rejected under 35 U.S.C. 102(a) as being anticipated by Accession No. BI837800, (NIH-Mammalian Gene Collection, 04 Oct. 2001).

Claims 16 and 23 read on isolated nucleic acid molecules comprising a nucleotide sequence encoding for a polypeptide selected from the group of consisting of SEQ ID NO: 10, 12, 14, 16, 18, 20, 22 or 24.

NIH-MGC teaches nucleic acids that encode SEQ ID NO: 20 (see following alignments for SEQ ID NO: 20). NIH-MGC also teaches a nucleic acid that encodes SEQ ID NO: 14. Therefore, NIH-MGC teaches nucleic acid molecules that are the same as that claimed.

```
RESULT 1
BI837800
LOCUS       BI837800                707 bp    mRNA    linear   EST 04-OCT-2001
DEFINITION  603083504F1 NIH_MGC_120 Homo sapiens cDNA clone IMAGE:5222808 5',
            mRNA sequence.
ACCESSION   BI837800
VERSION     BI837800.1  GI:15949350
KEYWORDS    EST.
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
            Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 707)
  AUTHORS   NIH-MGC http://mgc.nci.nih.gov/.
  TITLE     National Institutes of Health, Mammalian Gene Collection (MGC)
  JOURNAL   Unpublished (1999)
COMMENT     Contact: Robert Strausberg, Ph.D.
            Email: cgapbs-r@mail.nih.gov
            Tissue Procurement: Life Technologies, Inc.
             cDNA Library Preparation: Life Technologies, Inc.
             cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
             DNA Sequencing by: Incyte Genomics, Inc.
             Clone distribution: MGC clone distribution information can be
            found through the I.M.A.G.E. Consortium/LLNL at:
            http://image.llnl.gov
            Plate: LLAM11560  row: g  column: 01
            High quality sequence stop: 707.
FEATURES             Location/Qualifiers
     source          1. .707
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                     /mol_type="mRNA"
                     /db_xref="taxon:9606"
                     /clone="IMAGE:5222808"
                     /lab_host="DH10B"
                     /clone_lib="NIH_MGC_120"
                     /note="Organ: pooled pancreas and spleen; Vector:
                     pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA
                     source anonymous pool of spleen and pancreas from 28 yo
                     male.  Library is oligo-dT primed and directionally cloned
                     (EcoRV  site is destroyed upon cloning).  Average insert
                     size 1.5 kb, insert size range 1-2.5 kb.  Library is
                     normalized and enriched for  full-length clones and was
                     constructed by C. Gruber (Invitrogen). Research Genetics
                     tracking code 025. Note: this is a NIH_MGC Library."
ORIGIN

Alignment Scores:
Pred. No.:              1.03e-78        Length:         707
```

```
Score:                  773.00          Matches:        150
Percent Similarity:     100.0%          Conservative:   0
Best Local Similarity:  100.0%          Mismatches:     0
Query Match:            100.0%          Indels:         0
DB:                     3               Gaps:           0

US-10-625-471-20 (1-150) x BI837800 (1-707)

Qy          1 MetSerThrValProGlyGlySerArgHisSerLeuGlyIleGlnValArgGlyGlyTrp 20
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         14 ATGAGCACGGTGCCAGGTGGCTCCCGCCACTCCCTGGGGATCCAAGTGCGGGGTGGCTGG 73

Qy         21 GlyValThrGlyGlyGluGluGluSerLeuThrValProValAlaAspThrTrpGlnAla 40
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         74 GGTGTAACTGGGGGAGAGGAGGAGAGCCTCACTGTCCCTGTCGCTGACACCTGGCAGGCG 133

Qy         41 GlySerPheLysValAlaThrGlnGluArgAsnProGlnArgValGlnMetArgLeuArg 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        134 GGGAGCTTTAAGGTGGCCACCCAGGAGAGGAACCCCCAGAGAGTCCAGATGAGGCTGCGG 193

Qy         61 ArgGlnLysLysGlyValValProPheLeuGlyAspPheLeuThrGluLeuGlnArgLeu 80
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        194 AGGCAGAAGAAGGGTGTGGTCCCCTTCCTGGGGGATTTTCTGACTGAGTTACAGAGGCTG 253

Qy         81 AspSerAlaIleProAspAspLeuAspGlyAsnThrAsnLysArgSerLysGluValArg 100
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        254 GATTCGGCCATCCCGGACGACCTGGATGGCAACACCAACAAGAGGAGCAAGGAGGTCCGA 313

Qy        101 ValLeuGlnGluMetGlnLeuLeuGlnValAlaAlaMetAsnTyrArgLeuArgProLeu 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        314 GTTCTGCAGGAAATGCAGCTGCTCCAAGTGGCTGCCATGAATTACAGGCTTCGGCCTCTT 373

Qy        121 GluLysPheValThrTyrPheThrArgMetGluGlnLeuSerAspLysGluSerTyrLys 140
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        374 GAGAAATTTGTCACCTATTTCACAAGAATGGAGCAGCTCAGTGACAAAGAGAGCTACAAG 433

Qy        141 LeuSerCysGlnLeuGluProGluAsnPro 150
              ||||||||||||||||||||||||||||||
Db        434 CTGTCCTGCCAGCTGGAGCCCGAAAACCCG 463
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Conclusion

No claim is allowed. Claims 17, 18 and 25 are objected for depending from a rejected claim.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Holleran, whose telephone number is (571) 272-0833. The examiner can normally be reached on Monday through Friday from 9:30 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms, can be reached on (571) 272-0832. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Official Fax number for Group 1600 is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Anne L. Holleran
Patent Examiner
March 7, 2007